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Persuading Chinese female migrant workers to adopt safe sex practices: Results of a formative evaluation strategy

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Persuading Chinese female migrant workers to adopt safe sex practices:

Results of a formative evaluation strategy

by

Tian Zhu

A thesis submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Journalism and Mass Communication

Program of Study Committee:
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Ames, Iowa

2012

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
ABSTRACT	iv
CHAPTER 1. INTRODUCTION AND STATEMENT OF THE PROBLEM	1
CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK	7
Diffusion of Innovations	7
The KAP Model	8
Factors That Influence Adoption	9
Taboo Communication	9
Everybody Is Doing It	12
Rumors	13
Communication Channels	15
CHAPTER 3. METHOD	18
Qualitative Communication Research	18
Snowball Sampling Technique	20
Wuhan: The Study Locale	22
One-on-One Interview Procedures	23
Data Collection and Analysis	24
Strengthening the Inquiry	26
CHAPTER 4. FINDINGS	28
Demographic Information	28
Gender and Age	28
Income, Workload, and Exploitation	29
Local Contacts	30
KAP	31
The KAP Gap	36
Taboo Topics	39
Gender Roles Effect	44
Everybody Is Doing It	45
Rumors	47
Mass Media and Interpersonal Channels	49
Pamphlets	49
QQ and Qzone	52
Interpersonal Communication: The Boyfriend Channel	54
CHAPTER 5. CONCLUSIONS	56
Findings and Their Implications	56
Limitations of the Study	61
APPENDIX A. INSTITUTIONAL REVIEW BOARD APPROVAL	63
APPENDIX B. IN-DEPTH INTERVIEW QUESTIONNAIRE GUIDE	64
REFERENCES	68

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ABSTRACT

China has been witnessing the migration of workers from rural areas in search of job opportunities in the big cities. Of these young workers, females are especially at risk of having unwanted pregnancy, contracting sexually transmitted diseases and reproductive infections. This study examines this group's knowledge, attitudes and behavior toward safe sex practices, identifies the most efficient information channels to reach them, and offers recommendations for the design and implementation of health communication campaigns. Through in-depth interviews, the views and opinions of this highly marginalized group were solicited.

The findings show that interpersonal communication with friends, an instant chatting app (QQ), and hospital pamphlets were important sources of information about safe sex practices. Boyfriends were the most influential opinion leaders and actual decision makers in contraception choice. The disparity in gender power in decision-making was the most significant barrier to the adoption of contraceptive methods. The results suggest that future efforts should enhance the quality of information delivered through printed products and chat services. Future programs also should target young migrant male workers. Those directed toward women should move beyond family planning toward more consciousness-raising efforts that enable women to exercise more power over decisions that affect other important aspects of their lives.

CHAPTER 1. INTRODUCTION AND STATEMENT OF THE PROBLEM

The repositioning of China as the “world’s factory” and an economic powerhouse has brought dramatic changes to its cultural and social fabric. The economic vitality the country now exhibits is very much the result of a mobile population that “strikes where the opportunities lie,” nurturing a new Chinese working class of which female migrant workers, popularly called *dagongmeis*, constitute a special segment (Lee, 1998; Xu, 2000; Pun, 2005).

Dagongmeis, however, are faced with important challenges. While they help promote economic growth, they are not entitled to the same rights as urban residents, including medical benefits and social welfare programs. Exploited as cheap labor, they are paid a very low wage, averaging 1,747.78 Yuan per month, only 57.4% of what urban employees earn (New Generation Peasant Workers Report, 2011). The strict Chinese household registration system assigns to migrant workers “third-class citizenship,” which makes them an “invisible” group that straddles the divide between rural and urban residents. Living at the edges of the metropolis, away from home and family, they are prone to engage in risky sexual behavior much earlier and more frequently than other non-migrant women of the same age bracket (Li et al., 2004; Yang & Xia, 2006).

According to experts, this propensity to practice unsafe sex can be attributed to the emotional pressures attendant to migration shock (e.g., loneliness and homesickness), the desire for the approval in the new community, sexual needs in the context of relative freedom, and exposure to new environments (Wolffers et al., 2002; Yang, 2006; Yang & Xia, 2006). Migrant workers are usually hired at about their childbearing age; unmarried young migrant women constitute 70% of the female migrant population.

Along with Chinese reform and more open-door policies, young people, especially those in the urban areas, have imbibed a new liberal attitude toward pre-marital sexual behavior (Higgins et al., 2002; Wang & Davidson, 2006). According to Wang & Davidson (2006), the Chinese youth are “spending a long period of their lives being sexually active while single” (p. 227). Cheng et al. (2004) report that women experience their first intercourse at a younger age. Among their 1,500 unmarried female informants, 77.4% reportedly had their first intercourse younger than age 20. Because urban life is often a far cry from that which female migrant workers left behind, they are tend to try things they perceive as new and exciting in their attempts to blend with the local residents. Studying unmarried migrants’ reproductive health knowledge, Liu et al. (2011) found that 21% of their 3,412 respondents admit to having had pre-marital sexual intercourse.

Living outside of family supervision makes young migrants feel less constrained by social norms (Wolffer et al., 2002; Yang, 2006). Li et al.’s (2009) cross-sectional study assessing the prevalence of sexual behaviors and knowledge of reproductive health among local residents (91.1% of the sample) and migrant workers (8.9% of the sample) in the same age bracket demonstrates that migrant workers have a higher level of sexual experience (7.2%) than local residents (4.5%). This may be due to a low level of knowledge about reproductive health and safe sex practices, which often leads to a high risk of having unwanted pregnancy, STDs, and reproductive infections.

Liu et al. (2011) observed that among migrant worker-respondents who have had sexual experience (21%), almost half (47.4%) never used condoms during sexual intercourse. Of the female migrant workers in Shanghai aged 20 to 24, 16% have complained of reproductive infection (Lou et al., 2005).

In China, social taboos against single women bearing children persist. Thus, unmarried pregnant women often resort to induced abortion, which is legal in the first trimester of pregnancy. About 10 million legally induced abortions are performed in the country each year, mostly involving very young unmarried women (Cheng et al., 2004). Research conducted by Xiamen University(2003) further demonstrated that migrant women constitute a big proportion of abortion seekers—during 2002-2003, 61.3% of patients who had abortion in 24 hospitals in Beijing, Shanghai and Zhengzhou came from the floating migrant population. Undoubtedly, this is a conservative estimate considering that these reports were gathered only from official hospitals.

Because they are not considered local residents, migrant workers do not entitle social medical benefits following the household registration policy. According to the China Floating Population 2012 Development Report, more than 70% of migrant workers were not able to register for social insurance programs in 2011, including medical or maternity insurance plans. Without health insurance, migrant workers find it difficult to pay medical bills. Thus, a number of pregnant women choose to have induced abortions in unregistered clinics where this operation may be less expensive but more dangerous.

In general, sexually active single *dagongmeis* lack basic knowledge about contraception and reproductive health. A substantial proportion of them engage in pre-marital sex, but are too embarrassed to take the proper steps to mitigate the risks (Zheng et al., 2001). Enhancing safe sex awareness among *dagongmeis*, therefore, has become an urgent objective. Experts recommend improved reproductive health and family planning services to popularize contraception. Unfortunately, the social stigma attached to pre-marital sex and the constraints facing the migrant population make them a difficult audience to reach. Some of these major constraints are discussed below:

1. **Insufficient sex education.** Even though the average age at first marriage has moved up (Wang & Davidson, 2006) and the experience of first intercourse occurs at a younger age (Cheng et al., 2004), China's sex education and information efforts still target married couples, focusing on the "one child policy." Sex education in schools is insufficient to respond to current needs and demand (Ip et al., 2011; Wang & Davidson, 2006). Young women who grew up in rural areas where medical and education facilities are significantly inferior to those in urban areas may have little understanding of safe reproductive practices.

2. **Low education level.** Education and working experience are highly associated with migrant women's knowledge of contraception (Zheng et al., 2001; Ip et al., 2011). Most women move to the city soon after finishing middle school (Li, 2006). Because sex is still considered taboo, people have very little formal exposure to sex education. When such information is available, *dagongmeis* may find them difficult to understand. Zheng et al. (2001) found that some women know where to find contraceptive pills, but find the instructions hard to comprehend.

3. **The stigma of sex.** Recently, a Cantonese entrepreneur's effort to disseminate a million free condoms backfired when migrant workers accused his company of staining their reputation. Apparently, accepting condoms is tantamount to admitting to engaging in pre-marital sex. Often coming from conservative backgrounds, *dagongmeis* are uncomfortable talking about sex and are embarrassed to seek information about safe sex practices from reproductive health services.

4. **Limited time and opportunities to learn.** According to the China Floating Population 2012 Report, migrant workers work 54.6 hours per week on average, far exceeding the 40-hour maximum set by the Labor Law, with no over-time pay. The migrant informants in Tan's (2000) study report that they work an average of 10-12 hours a day and

can hardly have a day off over the month. After work, 75% choose to watch TV (Li, 2006). Although the government banned the airing of public service announcements regarding safe sex, the so-called “no pain abortion” advertisements are ubiquitous in local TV channels. These ads frame abortion as easy and convenient. The less restricted Internet could be an effective way of disseminating information about this topic, but very few migrant workers have personal computers. Even with the hardware, they do not have time to read or surf. As such, many are exposed almost exclusively to misleading televised information.

5. Confined personal networks. A 2012 survey conducted by Renmin University of China to determine migrant workers’ social presence show that 4.7% said they have “a lot of contacts” with the locals, 18.7% have “some contact but not too much,” 1.8% reported having “almost no contact,” and 74.8% said they have no contact with local residents at all. Consistent with the findings of this survey, the China Family Planning Association (2006) reports that young migrant workers gain sex-related information mostly from same-sex friends and the Internet. Their network is limited to family members and peers who, like them, may be unaware of safe sex practices as well. Thus, incorrect information can remain popular and persuasive.

In brief, the special circumstances of Chinese female migrant workers make them a difficult audience segment to reach. In the meantime, effective strategies addressing safe sex practices among migrant woman workers remain limited. Other than a few quantitative studies about women workers’ general knowledge of, attitude toward and actual contraception use (Ip et al., 2010; Zheng et al., 2001; Hardee et al., 2004), very rare are studies, especially qualitative ones, that focus on identifying the most effective ways of reaching this vulnerable audience group. More tailored interventions have the greater chance of making such information accessible to migrant people (Liu et al., 2011; Tang et al., 2011).

Responding to the call, this study is a formative evaluation effort to assist in the design and implementation of communication campaigns that aim to inform migrant women of ways by which they can protect themselves. The study has two principal objectives. First, it sets out to understand the process by which *dagongmeis* receive, adopt and implement knowledge related to safe sex. Second, the study aims to determine the communication strategies that may be used to disseminate safe sex messages. Special attention is placed on identifying the most effective and efficient channels that will cater to this special group. Third, it attempts to thresh out the implications of findings for future communication efforts. Data were gathered through in-depth personal interviews due to the sensitive nature of the topic and the tendency of females to talk about sexual relationships in indirect ways.

The findings are expected to assist Chinese common weal organizations, including the Dagongmei Community, in their efforts to reach out and serve the needs of this disadvantaged group. The results may be used in the design, implementation and evaluation of health communication campaigns that target this special population. Other civic groups, such as the Chinese Women's Organization, can also make use of the findings to inform their initiatives to improve the *dagongmeis'* living conditions.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This study banks on the propositions of several postulates of the diffusion of innovations theory to achieve its objectives.

Diffusion of Innovations

The tenets of the diffusion of innovations theory are highly applicable in identifying the information channels likely to cater to female migrant workers. According to Rogers (1995), diffusion is “the process by which an innovation is communicated through certain channels over time among the members of a social system” (p. 5), and “it is a special type of communication in that the messages are concerned with new ideas, practices, or objects perceived as new by an individual or other units of adoption” (p. 11). In many parts of the world, family planning is still considered an innovation. Rogers (1973) defined it as “the idea, program, or act of preventing births and of avoiding their consequences” (p. 5). Under this general rubric is subsumed the need to popularize and enhance the adoption of contraceptive practices to avoid unwanted pregnancies and the spread of sexually transmitted diseases.

Different from traditional demographic research, Bogue (1965) describes family planning research as “the systematic study of the phenomenon of family planning among populations, of the processes by which the practice of family planning diffuses throughout a community or nation, and of the forces that retard or facilitate such diffusion and adoption” (p. 721). This is why many studies related to family planning are essentially based on the diffusion approach (Rogers, 1973). Those who seek to understand the role of communication in the diffusion process often examine it following “a social psychological framework,

concentrating on the informational and motivational aspects of contraceptive behavior” (p. 75).

Communication campaigns to promote contraceptive use have been implemented all over the world. Valente and Saba (2001) classified these interventions into three categories: (1) strategies for training contraceptive service providers, (2) strategies to improve the accessibility of reproductive service and promote family planning products in the market, and (3) strategies to enhance the use of contraceptive devices. All these require a thorough analysis of target audiences.

The KAP Model

According to Valente and Saba (2001), individuals undergo a process of decision-making with respect to family planning practices. This process entails a learning hierarchy consisting of knowledge of the innovation, progressing to the formation of positive attitudes, and eventually adopting the innovation (p. 304). This knowledge-attitude-practice (KAP) model assumes that people first become aware of an innovation, develop a favorable attitude toward it, and then decide whether to adopt or reject the recommended behavior.

However, Rogers (1975) observes that in the field of family planning, favorable attitudes do not necessarily lead to actual adoption, especially in Third World nations. This may be due to a number of reasons, including fear of side-effects, lack of access to the innovation, and social-cultural constraints. Indeed, most strategies based on the KAP model demonstrate this weakness. For example, in Bond & Dover’s (1997) study of condom use in rural Zambia, people’s concerns that lubricants in condoms may somehow cause some adverse effects on the penis dampened the adoption of this practice despite a high awareness of condoms and how to use them. Similarly, in the Gaza Strip, Serena et al. (2000) found that even though individuals had favorable attitudes toward contraception, adoption was low due

to some perceived negative side-effects as reported by 68% of their sample. In the current study, other factors may impede adoption, including the very high possibility that female migrant workers may not know where to purchase contraceptive devices or the lack of support mechanisms and role models on whom they can pattern behavior. Despite the identified limitations, the present study adopts the KAP path of influence. Thus, it is hypothesized that

H1: After learning about safe sex practices, female migrant workers develop a favorable attitude toward these practices, and will consequently show greater intention to follow the recommendations.

Factors That Influence Adoption

There are several factors and special considerations that may hasten or impede the adoption of safe sex practices among the *dagongmeis*. With respect to the social problem at hand, the most pressing ones are (1) the taboo nature of the subject matter, and (2) the power of rumors.

Taboo Communication

Taboo messages are those “perceived by the members of a social system as extremely private and personal in nature because they deal with proscribed behavior” (Rogers, 1975, p. 62). In most Asian countries, family planning is still a taboo topic (Rogers, 1975). Chinese culture, in particular, is deeply rooted in the Confucian philosophy, which regards sexuality as taboo. Some scholars (e.g., Higgin et al., 2002) characterize Confucius’ views on sexual behavior as “a suppressive doctrine with strict moral and social codes that dominated Chinese attitude and behaviors toward love and sex up to the present day” (p. 76). In rural and urban China, pre-marital sex and abortion are still very sensitive topics.

Although there has been tremendous change in attitudes and behaviors toward sex over the last several decades, contraceptive information materials and family planning campaigns mostly target married women. Public service advertisements (PSAs) promoting safe sex practices have been banned because they fall outside the norms of a “highly spiritual civilization.” Thus, China still has to experience some kind of sexual revolution; still in place are unspoken rules that pose constraints on sexuality. Gao et al. (2012) note that these constraints may discourage pre-marital sex, but may also evoke stigmatization and self-stigmatization that prevent those who are sexually active from seeking information about safe sex practices.

Coming mostly from conservative backgrounds, many *dagongmeis* are uncomfortable talking about sex, are embarrassed to discuss safe sex practices and to seek reproductive health counseling. Conducting interviews with female migrant workers regarding pre-marital sex, Zheng et al. (2001) observed that *dagongmeis* often worry about their parents’ negative reactions to sex before marriage. After all, pre-marital sex is still seen by many as an offense to moral decency. Popularizing contraception under such circumstances is harder because of the social stigma attached to pre-marital sex.

Rogers (1975) notes that most family planning program officials in developing countries do not realize how “taboo their messages are in the eyes of their targets” (p. 69). Hence, he suggests that researchers should determine the parameters of taboo communication in much the same way that psychologist Sidney Jourard did in his work. Jourard (1971) developed some general parameters by asking respondents to indicate the frequency with which they have discussed 60 topics dealing with their body, work, money, opinions, and personality with their parents, male friends, female friends, and spouses. He calls such parameters a measurement of people’s “propensity toward self-disclosure” (p. 19), the act of

making oneself manifests to others. In taboo communication, self-disclosure is most likely to occur with one's spouse, with a same-sex friend next, with one's same-sex parent afterwards, and with another same-sex friend or parent last. It is also likely to ensue when receivers disclose themselves to the source (i.e., disclosure invites or begets disclosure).

By asking respondents with whom they may discuss a topic and with whom they may not, the self-disclosure approach helps determine the degree to which a topic is considered taboo and identify the variables that may affect communication of such topics (Rogers, 1973). For instance, Zheng et al. (2001) asked their respondents whether they discuss sex-related topics with family members, friends, or doctors to measure the degree of "tabooness" of sex among female migrant workers. Considering the foregoing findings, the first research question is posed:

RQ1: Whom do female migrant workers talk to about sex-related matters? How frequently and under what circumstances do they talk about sex? Exactly what kinds of sex-related topics are of interest to them?

By extension, it is hypothesized that:

H2: The extent to which female migrant workers see sex-related topics as taboo will have a negative influence on their knowledge of, attitude about, and behavioral intention toward safe sex.

The taboo nature of family planning topics is a formidable barrier in the spread of knowledge and perpetuates tendencies that help consolidate the taboo status (Rogers, 1973). Taboos can also lead to a situation in which those who are knowledgeable and with a favorable attitude about contraception may still choose to reject the practice in the absence of social role models and opportunities to try out and verify the recommendation (Rogers, 1995).

Everybody Is Doing It

How can the negative effects of taboo topics be dampened? Rogers (1973) suggests making messages more public to break the vicious circle. For example, to eliminate taboos about family planning in the Ernakulam district of India in 1971, “community leaders, poets, writers, social workers, and men and women from different religious groups were invited to make speeches, write poems and articles, and join public marches raising slogans in support of family planning” (Valsan, 1977). This campaign created a festival spirit to convey the message that “everybody is doing it (vasectomy).” Within 30 days, the total number of vasectomy adopters (63,000) have quadrupled compared to those who did so as a result of an earlier one-month campaign in the same district (Rogers, 1975).

The “everybody is doing it” strategy exemplifies the impact of the use the bandwagon appeal in the field of advertising. According to Leibenstein (1950), by employing the bandwagon appeal, “the demand for a commodity is increased due to the fact that others are also consuming the same commodity” (p. 189). Bandwagon appeals urge people to follow the same path that others have taken (KSU, 2002). The more people are seen as engaging in the new behavior, the more correct this behavior appears to be (Snyder et al., 2004). Thus, conveying a message, which basically says that “everybody is using condoms”, can help legitimize condom use.

Studying rural China, Rogers and Chen (1980) found that people adopted family planning methods before they even understood or liked them largely due to their exposure to group discussions. This finding reflects the country’s intense collectivist spirit (which emphasizes unified action) that is valued to this day. Thus, when female migrant workers who are eager to be accepted and involved in mainstream society we can assume that they

will share the opinion they perceive or are told to be commonly held; in other words, they will jump on the bandwagon. Therefore, it can be hypothesized that

H3: Conveying the message that “everybody is doing it” will create a more positive attitude toward safe sex practices and contraception among female migrant workers.

Rumors

Examining the diffusion of condom use in Chiawa, Zambia, Bond & Dover (1997) found that adoption was stymied by pervasive rumors. Among others, it was rumored that condom use lead to impotence, condom lubricants help spread diseases through the penis, and that condoms do not protect people against HIV. The latter resulted from anecdotes that water trapped inside condoms evaporates after four days, suggesting that condoms have highly permeable membranes. In rural China, rumors that condoms diminish male reproductive ability and that pills cause endocrinopathy directly contributed to low contraceptive use (Wang & Davidson, 2006).

Ip & Chan (2011) worry that while migrant women manifest poor contraceptive knowledge, their sources of sexual information are limited to same-sex peers and the Internet in which can be found all sorts of misinformation, a finding echoed by the China Family Planning Association (2006). Consequently, women’s personal networks are confined to family members and peers who, like them, may be unaware of safe sex practices. Thus, incorrect information and myths (e.g., that drinking toilet water can prevent pregnancy) remains popular and persuasive.

Because many identify their friends, relatives, and neighbors as sources of information on family planning, word-of-mouth dissemination may result in widespread misconceptions (Mukherjee, 1974). To break rumors, Rogers (1973) proposed four strategies: (1) identify the rumor early and directly attack the source; (2) emphasize follow-up contacts

with adopters; (3) offer high quality contraceptive services and use two-sided messages; and (4) carefully select words and symbols (p. 305).

In a study of the no-scalpel vasectomy campaign in Ghana, myths and misperceptions were identified as factors that discouraged men's adoption of vasectomy. Generalizing from previous qualitative studies, Subramanian et al. (2010) note that many thought that vasectomy leads to poor sex and a loss of manliness—negative messages that apparently contributed to the low incidence of vasectomy (less than 0.1%). To offset this, a campaign called “Get a Permanent Smile” was launched in which those who have undergone the procedure shared their satisfaction with the surgery on television commercials and radio spots. After the campaign, fewer men worried about the procedure and many more expressed their intention to be vasectomized.

To discount misconceptions about ineffectiveness of contraceptive devices, Rogers (1975) recounts the experience of a clinic doctor in Indonesia who became pregnant because of an IUD failure. She used her own experience to tell patients that IUD is not 100% effective.

According to McGuire (1989), compared to one-sided messages, two-sided messages are more attention-getting following the inoculation theory. Developed by McGuire (1961 and 1985), the inoculation theory posits that “audiences are ‘inoculated’ with the message by presenting them with mild-attacking arguments and then countering or refuting such arguments within the same communication to strengthen cognitions. Thus, the receiver obtains some ‘practice’ in refuting counterclaims” (Crowley, 1994, p. 562). Therefore, two-sided presentations help audiences cope with strong negative arguments if and when they are substantially involved with the positive aspects of the protagonist's position.

Lack of knowledge and fear of side-effects are the two main reasons why women fail to adopt contraceptive methods (Donati et al., 2000). Considering this, it is hypothesized that

H4: Checking rumors about contraceptive measures will lead to more favorable attitudes toward safe sex practices.

Communication Channels

Evidence from a number of studies suggests that exposure to mass media messages promoting family planning affects contraceptive behavior (Gupta et al., 2003; Subramanian et al., 2010; Cheng, 2011; Lou et al., 2011). Exploring the contribution of the media to sexual knowledge gain, attitudes, and behaviors among young adults in three Asian cities, Lou et al. (2011) found that nearly all their respondents considered the traditional media as their main source of sex-related knowledge. The Internet also was reported as an important source. Lou et al. (2011) observed that because their respondents were still embarrassed to discuss sex-related matters with service providers or parents, the mass media played a “super peer” role by offering information in a private and more comfortable way. Gupta et al. (2003) also found that communication campaigns that deployed the mass media in Uganda produced stronger intentions to use contraceptives.

Similar to other areas of national development, the impact of mediated campaigns meant to enhance family planning practices has come into question as researchers studying different parts of the world report conflicting results. For example, in Mukherjee (1974) found that a majority of his respondents in India cited friends, relatives, and neighbors as their sources of information about condoms, suggesting the impact of word-of-mouth dissemination. Likewise, Balakrishnan and Mattahai (1966 & 1967), studying Calcutta’s suburban areas, found that when it comes to family planning, friends and relatives were the most important communication channels cited. The influence of interpersonal sources

appears pervasive. In Char et al. (2011), a large majority of respondents (72%) showed a notable preference for interpersonal sources like peers and professionals. Cavill and Bauman (2004) concluded that the influence of mass media campaigns is limited as they enhance awareness, but can hardly motivate, persuade and change people's behavior on a large scale.

According to Rogers (1995), people go through five stages when they make decisions about an innovation. These are knowledge, persuasion, decision making, implementation, and confirmation. The mass media and interpersonal sources have demonstrated their capacity to influence at different stages. Several studies have confirmed that the mass media are effective in the first three stages of the process (Gupta et al., 2003; Subramanian et al., 2010; Store et al., 1999). Cheng (2011) found that women were more likely to learn about contraceptive-related information as they watch television or read newspapers. Thus, mass media exposure plays a significant role in the knowledge stage. Subramanian (2010) made full use of television commercials and radio spots in which vasectomy adopters highlighted the efficacy of the procedure to potential adopters. As a result, attitudes and intention to adopt increased from 39% to 50%. Storey et al. (1999) further indicated that exposure to mass media promoted the frequency with which people talked about the recommended behavior.

The mass media have been known to enhance interpersonal communication flows (Rogers, 1975). Moreover, interpersonal communication among peers about contraception serves as a source of social support for adoption and continued use (Babalola & Wang, 2003). Thus, it can be said that the mass media were relatively more important at the knowledge phase, and interpersonal channels were more important at the persuasion and decision stages. This is likely to be the case in this study that focuses on persuading *dagongmeis* to use safe contraceptive methods.

To Rogers (1975), interpersonal channels are more important, especially in countries where the mass media may raise unfavorable public opinion. Such an event happened in China when a Cantonese entrepreneur who disseminated a million free condoms to female migrants was accused by the women of assailing their reputation. The entrepreneur was criticized by the public for encouraging pre-marital sex. Similarly, in Guangzhou, a banner exhorting condom use was taken off a bus when parents complained that it may corrode young innocent souls and degrade their moral standards. Even government officials admit that the best way to avoid AIDS, STDs or unwanted pregnancies, is to abstain from sex. As early as 1989, the State Administration for Industry and Commerce published a notice prohibiting advertisements containing any sex-related information. To date, except for ambiguous AIDS ads, no PSA about safe sex practices has been shown on television. Hence, using the traditional media to disseminate family planning messages is not viable in China.

These findings suggest that in China, the traditional mass media operate in an indirect way. Interpersonal communication, on the other hand, is much less visible so that “family planning officials often forget, or at least underestimate, their ubiquity” (Rogers, 1975, p. 264). It is thus hypothesized that

H5: Interpersonal communication channels influence contraceptive adoption more strongly than mass media channels.

In summary, building on the axioms of the diffusion of innovations theory, this study seeks to understand the process by which *dagongmeis* adopt and implement knowledge related to safe sex and determine the communication strategies and channels that may be used to disseminate these messages to this special group.

CHAPTER 3. METHOD

Among other purposes, this study seeks to obtain an in-depth understanding of the factors that influence the unsafe sexual practices of unmarried migrant women between the ages of 16 to 25. This special audience group was chosen because government records suggest that they are very much prone to engage in risky sexual behavior much earlier and more frequently than other women within the same age bracket (Li et al., 2004; Yang & Xia, 2006). In general, sexually active single *dagongmeis* lack basic knowledge about contraception and reproductive health. A substantial proportion of them engage in pre-marital sex, but are too embarrassed to take the proper steps to mitigate the risks (Zheng et al., 2001). Enhancing safe sex awareness among *dagongmeis*, therefore, is an important objective.

Unfortunately, the social stigma attached to premarital sex and the constraints facing the migrant population make them a difficult audience to reach. By applying the qualitative research method of in-depth interviewing, this study aims to understand the process by which *dagongmeis* adopt and implement knowledge related to safe sex and determine the communication strategies and channels that may be used to disseminate messages to this largely “hidden” population.

Qualitative Communication Research

The goal of qualitative research is “the development of concepts which enhance the understanding of social phenomena in natural (rather than experimental) settings, giving due emphasis to the meanings, experiences, and views of all participants” (Pope & Mays, 1995, p. 43). The essence of qualitative research is” the reality of getting in and getting close” to the targeted audience (Welland, 2002).

Qualitative research is most suitable in describing a phenomenon, a task that cannot be reduced to an analysis of statistics (Mies, 1991). In the current inquiry, qualitative

methods allow more space for *dagongmeis* to tell their own stories in their own terms (Jayaratne & Stewart, 1991).

Data for this study were gathered through in-depth personal interviews with female migrant workers. Weiss (1994) summarizes the attributes of this method as follows:

Interviews that sacrifice uniformity of questioning to achieve fuller development of information are properly called qualitative interviews, and a study based on such interviews, a qualitative interview study. Because each respondent is expected to provide a great deal of information, the qualitative interview study is likely to rely on a sample very much smaller than the samples interviewed by a reasonably ambitious survey study. And because the fuller responses obtained by the qualitative study cannot be easily categorized, their analysis will rely less on counting and correlating and more on interpretation, summary, and integration. The findings of the qualitative study will be supported more by quotations and case descriptions than by tables or statistical measures. (p. 3)

Weiss (1994) explains that interviews give access to the observations and opinions of others by developing detailed and holistic descriptions, integrating multiple perspectives, and describing the process. Information from qualitative studies is efficient to explain complex relationships and help researchers to gain different perspectives.

In-depth interviews were employed to gather data for this study for two major reasons. First, due to the sensitive nature of the topic and the tendency of females to talk about sexual relationships in indirect ways, personal interviews offer space and less pressure so that respondents can tell their story. Second, the complex nature of the topic demands close attention to each participant's life story; personal interviews are well-suited to gathering such data in the migrant women's own words.

Snowball Sampling Technique

Green and Thorogood (2004) specify that “for some studies, sampling decisions need to be made opportunistically if there are few potential interviewees who may be willing to agree. Most qualitative research uses purposive sampling; that is, they explicitly select interviewees who are likely to generate appropriate and useful data” (p. 118). A purposive snowball sampling technique, therefore, was applied in this study, which addresses the risk issues confronting what are known as “hidden populations.” Hekathorn (1997) says these special groups have two characteristics that have a bearing on sampling choices. First, the unclear sample frame. Second, strong privacy concerns exist due to the attached social stigma.

Because sex is still a taboo issue in Chinese mainstream society, it is difficult to find participants who are willing to cooperate. Traditional methods cannot produce reliable samples, and they are inefficient because most “hidden” populations are rare.

Snowball sampling is identified as an appropriate method to study these “hidden” populations. Developed from Goodman (1961), Hekathorn (1997) explains how snowball sampling works:

Ideally, in snowball sampling, a randomly chosen sample serves as initial contacts, though in practice ease of access virtually always determines the initial sample. These subjects provide the names of a fixed number of other individuals who fulfill the research criteria. The researcher approaches these persons and asks them to participate. Each subject who agrees is then asked to provide a fixed number of additional names. The researcher continues this process for as many stages as desired. (p. 174)

To find samples from a hidden population, Weiss (1994) argues that it is crucial to identify a member who is willing to participate in the study as an informant. To build a sample from the female migrant population, I contacted the Chinese commonweal organization in Wuhan to solicit names. Those in this original list were then asked to offer the names of peers or friends who may wish to participate in the study.

While snowball sampling can produce a targeted group of respondents, Erickson (1979) worries that participants are seen as convenience samples. Because snowball respondents rely on the initial sample, bias is easily generated. According to Erickson(1979) and Hekathorn (1997), these samples may be biased when the topic touches personal privacy; people may refuse to refer their friends so that they can protect them.

To minimize bias, each participant was asked to provide the names of three friends or peers who they think have different lifestyles and habits or hold different opinions about sex.

Another problem with samples selected only because they are conveniently obtained is that they do not offer good bases for generalization. Thus, a sampling to saturation approach is implemented.

This approach advocates theoretical sampling or including interviewees, events and incidents that interviewees and other sources provide on the basis of both an understanding of the field, emerging hypotheses from ongoing data analysis, and a deliberate attempt to test such hypotheses. The intention is to keep sampling and analyzing data until nothing new is being generated. This point is called “saturation,” and the strategy is known as “sampling to saturation.” (Green & Thorogood, 2004, p. 119)

I first contacted the Chinese commonweal organization in the city of Wuhan to find the initial sample. The organization recommended two ladies who were willing to participate

in this study. I then asked the two initial informants to each give me the names of three people they know who might be interested in being interviewed. The same procedure was used to recruit later participants. More participants were recruited until their responses reached redundancy or when new data from the responses were no longer forthcoming. My request for interviews was turned down by a number of women. Twenty-two *dagongmeis* agreed to be interviewed. They constitute the current study's sample.

The interviews began in June 2011 and ended in August 2011. They were conducted in the city of Wuhan.

Wuhan: The Study Locale

Wuhan is the largest city in central China. As the capital city of Hubei province, Wuhan covers an area of 8494 square km with a permanent population of 9.78 million. Male population constitutes 51.43% and female population constitutes 48.57%. In terms of education, 2.47 million people received a college or higher degree; 2.13 million people have a high school degree, 3.23 million people have middle school and 1.29 million received primary school degree. The illiteracy rate is 2.29%. Among Wuhan permanent population, 49.9% works in the Tertiary industry (service sector), 36.9% work in Secondary industry (industrial sector) and 13.2% work in Primary industry (agriculture sector).

Wuhan, as a central metropolis of central China, is known as the Heart of Chinese Economic Geography and the Traditional Inland Transportation Hub. In 2010, the GDP of Wuhan reached 5565.93 million RMB Yuan, and per capita GDP exceeded 58961 RMB Yuan, accounting for a GDP growth rate of 14.7%. In the past few years, along with thorough implementation of Facilitating the Rise of Central China Strategy, Wuhan has entered a golden age of rapid development. Combined with many manufacturing and labor-

intensive enterprises gradually moved to the central mainland, more opportunities are wide open for rural laborers.

Since most of the migrant workers come from the central and western regions in China, with the rapid development of central China, it gradually becomes a trend that rural migrant workers are more likely and willing to find jobs in big cities near their hometown, so that they can reduce the cost of living and stay closer with their families. The city of Wuhan is one of the hottest spots.

Previous studies on migrant workers mainly focus on the groups who work in the southeast costal region; the research on migrant workers who work in central region needed to be further explored. To study migrant women in Wuhan can be representative of migrant workers who work in central China.

One-on-One Interview Procedures

All personal interviews were conducted following a semi-structured interview schedule (Appendix B) that was constructed based on the literature review. The interviews were taken in different hotel rooms. After the initial sample gave me the connections, I contacted them to ask where they work and what time is convenient for them. Most informants wanted to use a few hours of their afternoon break time rather than the weekend, so I checked into hotel rooms near their workplace so they don't need to spend too much time on the road. To protect their privacy, except for me and the informant, no one else was present during the interview. The interviews were tape-recorded with the participants' permission and the tape recordings were then transcribed for analysis. The average time for the interview was one hour.

Data Collection and Analysis

The semi-structured interview schedule has five parts. The first part aims to gather information about reproductive knowledge, attitudes, and practices among these women. Data were collected from guided discussions aimed to determine their knowledge of (1) sexually transmitted diseases (STDs), (2) contraception, and (3) abortion.

The second part assesses the degree of “tabooness” of sex among the *dagongmeis*. Data were collected from guided discussions on the following topics:

1. The participants’ and their families’ general attitudes regarding sex and sexuality.
2. Who do female migrant workers talk to about sex-related matters? How frequently and under what circumstances do they talk about sex?
3. How do they treat sex-related information?

The third and fourth parts investigate the *dagongmeis*’ communication behavior, including their social participation, exposure to media and interpersonal communication channels. These items include:

1. Who do they talk to or contact the most when it comes to sensitive topics such as sex?
2. What media channels do they use most frequently?
3. To what extent do they participate in social activities within their immediate communities?

The interview schedule used in the study is reproduced in Appendix B.

The participants need to feel at ease while being asked questions related to sex to elicit from them honest and genuine responses. To reduce the “power distance” between the researcher and the participants, I encouraged the informants to take the lead in the

conversation. Semi-structured interviewing made the conversation lively and elicited new and inspiring perspectives.

In this power distance reduction process, several details are worth to be noted. My identity as a graduate student who goes to school in America symbols I have a wealthier family and am very well educated. Additionally, we are almost in the same age bracket; therefore, it would be very easy to make these young women feel distanced and inferior compared to me. For example, during our chitchat, many showed confusion about why I chose them to help. Several girls said that they are only migrant workers and may not able help me with such an “internationalized study” (because I study in the U.S.). It gave me this feeling that they felt they are so small that their opinion means nothing at all. Making them feel proud of themselves helped break the ice and encouraged them to tell me their real thoughts. So I kept telling them that I actually admire them since they are so brave, independent and able to carry the burden of life at such a young age. By sharing my thoughts on them really worked. Many smiled after I told them my admiration, and started to tell me they need to support their siblings back home and then gradually felt comfortable telling me their stories. I also encouraged them to ask any questions they might have had about me and my work. This step indicated to them that I was not there to ask questions about them; I was there because we could get to know about each other. They knew from the consent form that I am a graduate student studying in America. I could sense their curiosity about me. For example, to them, America is such a far-away-land that only exists in TV. In the meantime, my age, which seems not appropriate for asking them sex-related questions, also intrigued them. I answered every question they asked. My “migrant” experience in America, even though much different from theirs, the long time separation from family and the cultural obstacles still generated empathy and showed them that we had things in common.

With the participants' permission, 19 personal interviews were tape-recorded and then transcribed; three were recorded through hand-written notes. First, the data and the responses were organized using a preliminary category system. These categories arose from the data. For example, major themes such as "peers are more persuasive" and "mass media as major sources of information" were teased out from the participants' comments. The analytic induction strategy was implemented by following the steps outlined by Wimmer and Dominick (2006) that were adapted from Stainback and Stainback (1988). These steps were as follows:

1. Bring up the hypotheses and research questions posed.
2. If, after analyzing the discourse, these hypotheses are not supported, then they will be reformulated.
3. Analyze the responses until the hypotheses are refined.
4. Go back to the responses that disapprove the hypothesis. Check the reasons for rejecting the hypothesis.
5. Continue until the hypothesis is adequately tested.

Strengthening the Inquiry

To strengthen the validity of the findings and assure the completeness of data, I asked informants to allow me to record our interaction. Most agreed to this request. To enable easy reproduction and archiving, I combined both audio recording and notes to identify the key issues more accurately. The original tapes and the transcripts of the taped interviews were kept and archived.

Wimmer and Dominick (2006) suggest that qualitative researchers should be concerned with selective perception. Thus, the discourse of participants whose answers do not fit the interpretative model were analyzed to offer explanations as to why they do not fit.

Additionally, a “paper trail” that organizes data, their origins, and the method used to collect and analyze them was established. I also did member checks as suggested by Maykut and Morehouse (1994) by I asking informants to double-check the accuracy of my notes, descriptions, and the key words used.

CHAPTER 4. FINDINGS

Demographic Information

Among the 22 informants interviewed, 16 have boyfriends or used to have one. Of these, 14 have had sexual experience, six have a history of abortion, and two have had the procedure twice. Twelve live with their boyfriends, three reside with their relatives, and seven stay in a dorm. Most have had more than three jobs. The average age is 20 years old.

Gender and Age

Wuhan is famous for catering and other service businesses; hence, most *dagongmeis* in the current sample work in this industry. Thirteen of them were waitresses in restaurants and hotels, four were beauty salon assistants, and five were hairwashers. Many were just turning 18. Requested to provide contact information for future interviews, they always asked back: “Do you have to have this age limit? The girls in my work place are usually around 16.”

The cheap labor market, especially in the service industry, is always in search of young single applicants. Young unmarried women are perceived as “highly flexible, inexpensive and easily disciplined” (Mills, 2003, p. 42). With little experience and no wherewithal to bargain for decent salaries and benefits, they take on jobs that do not require much skill. Young good-looking girls also are more attractive to customers. By their accounts, the women were very much aware of these unwritten requirements.

No. 5: I am going to be 23 this year. I intend to work in this restaurant for another two years, tops, and then quit because by that time, I will be considered too old for this job. They like the ushers young and pretty.

No. 21: I'm 20. I won't stay in this place for long because the new girls they employ are about only 15 or 16. I am too old compared to that. I have to learn a new skill, maybe how to cut hair.

According to the Migrant Workers Short-term Employment Trend Research Report (2012) published by Tsinghua University, migrant women are, on average, three years younger than their male counterparts, but their average years at work is 2.4 years shorter.

The participants also complained about disparities in income and benefits based on gender. One said her salon recruits men and women as hairwashers; however, after some time, most male hairwashers are sent to a professional school to study hair styling for six months. They then return to work as hair stylists who earn a higher salary. Female hairwashers, in contrast, tend to be mired in the same position for several years, regardless of outstanding performance. A few lucky ones are sent to school, but the rest look for other job opportunities because they become too old for the job.

Income, Workload, and Exploitation

Employers often take advantage of the *dagongmeis'* low education level and the limited employment opportunities. They work an average of 10 to 12 hours each day and earn a monthly income of roughly 1,000 to 1,500 yuan per month (about 6.3 yuan = 1 US\$). Hairwashers receive four yuans for the 30-40 minutes they spend per head. On top of that, they are required to give a 20-minute head massage.

No. 15: I work 10-12 hours a day, but it depends on the customers. I start work at 8:30 every morning; our store closes at nine in the evening. If customers walk in 10 minutes before 9:00, we still accommodate them. I'm used to working all day long. I have my energy drinks. How much money I make varies. For example, this month was tough—I earned only 400 yuan. The maximum you can get as a hairwasher in

our store is 1,000 yuan a month. However, it means washing 300 heads. Below that, they will cut your salary. We get nearly four yuan for each head we wash. It is summer right now and there aren't many who come to the hair salon. I only washed a little bit more than forty heads this month.

No. 18: I stay because I only have a middle school degree; I can't find other jobs. What can I do? I have to live with that.

Local Contacts

Feeling inferior, *dagongmeis* have loose ties and few connections with those in their local community.

No. 4: I don't have any contact with local people. I just hang out with several girls from my hometown. I guess it's because people from my hometown are much nicer.

No. 14: I'm very shy. I don't have much contact with people outside. I talk to those who work here, sometimes.

No. 18: Frankly the local folks are not friendly. I'm a waitress. When they are not satisfied with the food or the service, they shout at me and call me a stupid village girl. Urban people have some kind of superiority complex, which sometimes makes me mad. But it is fate, what can I do? Quit my job and go home?

No. 5: I don't have much contact with the local people. We usually go to work early and get home really late. I don't have much time and energy for it. Besides, who would like to be friends with us? We are different. We live in a different world.

No. 16: There's so much work that I don't have many chances to mingle with the local people. I honestly don't know how to make friends with them. They are not friendly. I don't want to mess with them.

No. 3: It is impossible to be friends with the local folks! No offense, but some urbanites are horrible! You can tell I have an accent, right? The locals look down on us. They call us annoying peasant workers and always make fun of our accent. It is almost impossible to have friends here. We have Wuhan girls in our store; they never talk to us.

Clearly, gender, class, and place of origin complicate their condition in an unfamiliar setting.

KAP

Migrant women report little understanding and knowledge of HIV and STD, including the definition of each disease, their transmission route, and the ways they can be prevented. None was able to define what HIV and STDs are; most confused the two or thought they were one and the same. Sexual intercourse was the only route identified for disease transmission. However, without any exception, the participants associated these two diseases with a liberal lifestyle. That is, they were unanimous in saying that only those with multiple sexual partners catch STDs and/or AIDS. None seemed concerned with contracting STDs from their boyfriends because they firmly believe that their sexual partners are nice, monogamous guys. How they can be protected is never taken into account. This finding is consistent with that of Liu et al. (2011) who found that migrant workers' limited knowledge about sex exposes them to higher risks of STDs and AIDS (Ip et al., 2011; Lurie et al., 2003, Li et al., 2004; Wolffers et al., 2002; Skeldon, 2000).

No. 6: I'm not sure what AIDS or STDs are. It seems like only those who sleep around get infected with these diseases. I don't know.

No. 2: I never thought condoms can prevent STDs and AIDS. But we (my boyfriend and I) are exclusive. I'm with him, he is with me only. You won't have any problems if you don't sleep around.

No. 5: I think my boyfriend is a decent man, so I never think about the possibility of him infecting me with some disease.

Compared to the migrant worker sample in previous studies (Zheng, 2001; Ip et al., 2011; Liu et al., 2011), the participants in the current study demonstrate some knowledge of contraception. They were aware of condoms and the availability of emergency pills, and know exactly where to purchase them. Nearly all of the respondents knew how to use condoms and the side effects of taking emergency pills. Only those who have not had sexual experience said they do not know how to use a condom.

No. 4: Sometimes when my boyfriend does not want to use a condom, I take emergency pills. Yes, I know the side effects of emergency pills, so I don't take it frequently, maybe just once or twice in six months. My boyfriend cares about me so much that he does not want me to take the pill too often. They say you can take pills no more than two times a month; the pill won't work the third time. People may have reproductive problems like infertility if they take too many emergency pills.

The calendar or rhythm method is the next most commonly named mode of birth control although a few are uncertain about how to properly calculate a female's safe days. Among those with this difficulty, their boyfriends keep the record and do the math. The boyfriends download an app on their cells phones that is used to figure out the safe days following a start and end date.

No. 16: Sometimes we apply the rhythm method as a contraceptive measure. I don't know how to calculate for the safe dates, however. My boyfriend downloaded an app

for me in his cell phone. You input your menstrual dates and period cycle, and then this app calculates which days you are safe.

Another traditional method, withdrawal, was mentioned by several women, but rather coyly. None directly called this method “withdrawal”; instead, they use nuanced phrases and references to describe the method. Asked if they are aware of other birth control methods, the withdrawal method had to be teased out:

No. 9: There is one in which, you know, men control themselves.

No. 2: Sometimes men can do their business outside.

No. 14: Men have their own way to avoid “that” from happening.

Interviewer: Do you mean withdrawal?

No. 14: Yes, that method.

The participants demonstrated very favorable attitudes toward family planning. They agreed that not using protection during sexual intercourse is risky. Unlike in Ip et al. (2011) in which the women thought contraception methods can negatively affect reproductive health, in this case, only one expressed that view. Many considered condoms the best choice to prevent pregnancy. Those who have had sexual experience were proactive in seeking reproductive health information mostly by reading pamphlets from hospitals.

Those who do not have experience with sex worry about unintended pregnancy and expressed the intention to take prevention measures should they decide to be sexually active.

No. 13: I have not had any sexual experience so far. I have a boyfriend, but we haven’t gone that far. Is it true that women are more likely to conceive without condoms? I definitely don’t want to get pregnant. When my time comes, I think I will use a condom.

Although some expressed concerns, these did not directly lead to active knowledge seeking. They think they do not need more information because they do not know when things may actually happen. This finding is similar to that of Cheng et al. (2004) who explored the reasons behind repeat induced abortions and contraceptive practices among unmarried young Chinese women. In their sample of 1,500 females, 77% reportedly had their first intercourse younger than 20; 70.3% of them did not use any protection.

No. 15: I'm not interested in getting more sex-related information. I'm too young for that, and I don't have a boyfriend. I will know how to practice safe sex in due time.

No. 12: My boyfriend and I are not having sex yet. I will think about it when we get there.

No. 12: I don't need to know how to calculate following the rhythm method. It's just that we are not there. I will figure it out when we actually decide to do it.

No. 3: I'm not too curious about safe sex practices. I learned something from sex education class in school, but that was so lame. I don't have a boyfriend, so I don't think it is the right time for me to check. I'll wait and see, but I will know in due time.

Hypothesis 1 posits that the adoption of safe sex practices among members of this special group follows the KAP sequence. The participants' responses show knowledge of and a favorable attitude toward contraception. In spite of this, a consistently low use of condoms was detected. All interviewees expressed concern about unwanted pregnancy and identified condom use as an effective contraceptive method. However, the percentage of respondents who are currently practicing contraception is considerably smaller than the percentage of those expressing a favorable attitude toward the family planning method. Only two consistently use it. Others employ the withdrawal and calendar methods. Because knowledge

of and favorable attitude toward contraception did not translate into consistent condom use, Hypothesis 1 is only partially supported.

Even among those who apply the rhythm or calendar method, no one can explain how to calculate for these “safe” days. It must be noted that the traditional calendar and withdrawal methods are considered unsafe methods of protection because a “safe period” is hard to ascertain among women with irregular menstrual cycles. Men may not realize they had already ejaculated before they consciously withdraw, making withdrawal an unreliable method (Cheng, 1997). Among the six women who have had abortion, five said the unwanted pregnancy resulted from an over-reliance on applied withdrawal and rhythm. This finding echoes that of Cheng et al. (2004) who found that these two methods were the cause of 50% of contraception failures. In another study in China, Cheng (1997) demonstrated that among 1,520 women seeking induced abortion, 59.1% attributed the pregnancy to the failure of rhythm; 43% were users of the withdrawal method.

Considering the high abortion rate in the country, especially among the migrant population, special efforts are made to investigate the migrant workers’ abortion experience and their attitude toward this surgery. Asked about their knowledge and experience with abortion, some (mostly those who have had surgery before) were reluctant to answer the question. A considerable number actively recounted the time when they accompanied a friend for the surgery; others told about their own experience. It is therefore not surprising that the participants know fully well the signs of pregnancy and the complications attendant to the surgery and post-surgery recovery. They also related stories about those who have had abortion and how the procedure affected their health.

No. 13: You will age about three years after an abortion. . . . I know that abortion can do a lot of harm, especially if it is your first time to ever get pregnant.

No. 5: I have never had an abortion, but some in our restaurant have had it before. They worry each month that their period won't come. Since their abortion, they have been using condoms diligently, but they are still afraid of "accidents." Of course there are health risks related to abortion. Having this surgery may affect reproductive health, it may affect future pregnancy.

No. 10: I just talked about it with my colleague who said she had an abortion before. Habitual abortion makes women prone to infections.

No. 9: I have had an unintended pregnancy once. I was sad, but also happy. I felt I was a complete woman. A lot of people are infertile these days; my pregnancy proved that I am capable of having a kid. Unfortunately, we can't keep the child. We could have that child back then, but things got very complicated.

The interviews revealed that, for some women, having experienced abortion prompted them to seek sex-related knowledge and to develop more favorable attitudes toward protection. Several were freaked out by the accident and decided to be cautious in the future. Yet, they admit that once in a while, they have unprotected sex.

The KAP Gap

Because practice does not seem to result from knowledge and favorable attitudes, the informants were asked what contraceptive method they use (if any), when they use them, and what caused any unplanned pregnancy. Consistently, they referred to accommodating their boyfriends' demands, ceding the responsibility for contraceptive use to their partners. Phrases like "he likes to" and "he wants us to" were common in their answers. Clearly, their boyfriends' attitude toward sex influences theirs; the men decide what to do for protection.

No. 16: We use contraceptives. Sometimes it's a condom, sometimes we practice the rhythm method. My boyfriend downloaded an app in my cell phone where you input

your menstrual dates and period cycle, and then it calculates which days you are safe to go.

No. 10: We use condoms. To tell you the truth, I didn't know anything about sex until I met my boyfriend. He taught me everything. I had never seen a condom before until he showed me one. He uses it every time we have sex because he is very responsible. He knows abortion is painful and bad for reproductive health. Some use the withdrawal method, but it's too dangerous. My boyfriend sometimes even uses two condoms to avoid accidents.

No. 2: My boyfriend wants the withdrawal method because he is afraid of getting me pregnant. We can't afford to raise a baby right now.

Previous studies (e.g., Zheng et al., 2001; Bond & Dover, 1997) indicate that the power imbalance between gender places women in a position in which they hardly participate in contraception decisions. The study participants tacitly approve of this subservient status, frequently emphasizing that being men entitles their boyfriends to the role as the sole decision maker.

No. 2: What do I know about the best contraceptive method? My boyfriend favors it (withdrawal) because guys usually hate condoms.

No. 8: My boyfriend buys the condoms. He is a man; he should be in charge of that. I never bother with it.

No. 13: Women don't need more sex education to learn how to protect themselves. Men should know these things; they teach girls how to do it.

To the participants, men take care of the sex-related matters. Given the chance to take the lead, they themselves decide not to use condoms knowing that their boyfriends find condoms extremely uncomfortable. Boyfriends who do so were seen as responsible and

considerate partners who are making a big “sacrifice” to protect them from being pregnant. Many expressed their gratitude for such a self-effacing act. Boyfriends are rewarded accordingly by their deliberate refusal to use them. Thus, even when women are in charge, decisions are made with due deference to the men’s feelings and comfort. According to Preston-Whyte (1993) the use of condoms “seems to challenge the very basis of human relationships, trust, and willingness to put one’s life into another’s hands” (p. 253). To the participants, choosing not to use condoms is a way to express their affection and maintain the relationship.

No. 16: Occasionally, I offer not to use a condom because I know that using one will take a lot of pleasure out of sex. I mean, I still feel the same, but he can tell the difference.

No. 17: I think that if this is a serious relationship, we should be considerate with each other. Sometimes I take chances, thinking I won’t get pregnant.

No. 9: Most of the time, I am diligent with using protection. I think my boyfriend loves me very much. You can tell whether a man loves you or not. If a man is excessively accommodating, what can I say?

No. 9: Sometimes I put myself in his position. I know what makes him feel better. Sometimes, it is he who insists on using the condom.

In summary, the use of contraceptives does not result from an awareness of and favorable attitudes toward contraception. This may be because the decision to use contraceptives and what method to use generally resides with the male partner. Even when women make the choice, they do so considering their partners’ desires.

Taboo Topics

The participants work as waitresses, restaurant ushers, hair washers and beauty shop assistants. During idle hours, they chat. Research Question 1 asks: What do they talk about? Is sex often a topic of conversation?

Their discourse indicates that the women regularly talk about sex and sex-related topics mostly with their colleagues. The topics range from newly discovered condom brands to gynecological problems. It seems that sex-related topics are no longer taboo; rather, they are often discussed if only to kill time.

No. 7: We talk about sex-related matters lot. The restaurant ushers talk about it all the time. I just listen to them. One of them really likes to tell us about her sex life. I am so used to it by now.

No. 2: Of course we talk about sex at work, but not when we are serving. We talk about it a lot.

No. 6: We are girls; we talk about it once in a while. I don't feel embarrassed or uncomfortable at all. The first time someone mentioned it, it was bit awkward, I guess. Sometimes girls ask me questions about condom brands, gynecological problems, and so on. I've gotten used to it. You see, we don't have customers after 2 pm, so people chat to kill time. They do it for fun.

The interviews also revealed an almost universal agreement that pre-marital sex and cohabitation are now very common in China. Their attitudes toward these practices vary slightly. Some prefer commitment first before cohabitation and sex. Some lean toward getting approval from parents first before cohabitation. Others want a serious relationship and enough knowledge to protect themselves before agreeing to live with their partners. None considered cohabitation or pre-marital sex as something to be ashamed of; everyone

thought it acceptable to have pre-marital sex or to cohabit before marriage. Even their conservative hometowns are gradually embracing a more liberal attitude, as they report.

No. 17: Most of my colleagues live with their boyfriends. I used to have a colleague who was 17 years old. She lived with every boyfriend she had. I am a traditional girl, I think it is okay to get together, but I don't approve of cohabitation. By "get together," I mean "having sex." If one is in a serious relationship, it is acceptable to get together because when you are in a certain phase of your relationship, you can't avoid having sex, If you don't have sex, people will think you're abnormal. When you cohabit, this means there will be regular sex, so it is easier for girls to get pregnant. If I have a friend who intends to live with her boyfriend, I will tell her to learn how to protect herself.

No. 7: Cohabiting is more than common. Most start living with their boyfriend a few months after establishing their relationship.

No. 13: If the couple thinks there is no problem, I think it's fine. Society is very open now.

No. 9: If a couple is in a serious relationship and intend to get married, it would be fine. You should at least know each other well before living together. I know a lot of kids, probably 17 or 18 years old, who live together. How can they raise a child? It is so easy to conceive at that age, which results in abortion. I don't approve of very young people cohabiting. It is not as romantic as what they show in TV dramas.

No. 4: If parents agree, there won't be any problem. But if you live with someone without your parents' permission because you're lonely or because you just want to have fun, the girl will be the one who suffers more in the future.

No. 17: I read this book titled “True Love Waits,” which basically persuades people to wait until they get married. I don’t agree with it. I think if two people are considering their future, they should try to “be together” once in a while because, after all, there are many men out there with all sorts of dysfunction. What if you find yourself in a serious problem after you get married? I won’t have sex with someone I just met, but if we have known each other for a while, I think we should practice for marriage. Sex is very important to both of us; we should see if we fit before we wed.

Their straightforward responses indicate that the women do not keep their abortion history a secret or perceive it as something they should feel ashamed of. Those who know women who have had abortions expressed their sympathy and put the blame on the man or the girl’s carelessness rather than talk about the matter as a moral issue.

No. 16. Most men don’t want to wear condoms, and the girls get careless, too. It is now very common for women to have induced abortion because it can be done very fast. Once I accompanied a friend who underwent this kind of surgery. It went really quick.

No. 19: In today’s world, there are a lot of girls who have induced abortion because they don’t know how to protect themselves. In our catering business, we notice that very mobile migrant female workers are prone to unwanted pregnancies. It seems to be an offshoot of the new morals.

No. 4: I have sympathy for someone who has had abortion; I won’t judge her.

No. 12: My sister had an abortion when she was very young. Young people, when they fall in love, tend to have an IQ of zero. It’s stupid to get pregnant at such a young age. But everyone goes through that phase. If a woman loves a man too much, reason goes out the window. I do understand that.

No. 13: I won't judge the girl. I think this is the man's problem. He should be responsible.

There was a dramatic change in demeanor when participants were asked if they talk about sex with their family. Everyone gave a "this question is crazy" facial expression to show how that they find it ridiculous to even think about discussing sex-related matters with parents. They emphasized that they come from remote areas where people are nothing but conservative.

No. 3: No! Impossible!

No. 9: I am seldom at home, so I don't talk about private matters with my mom. In villages, people are more conservative. I hid my relationship from them for a long time until it became really serious. My mom never tells me anything, even when I first got my period.

No. 8: Impossible! My parents would say, "You are still a little girl, you should be ashamed to ask about these things."

No. 16: My parents are conservative. We never talk about anything related to sex.

However, the lack of conversations about these matters does not mean that parents hold a stiff attitude toward pre-marital sex, cohabitation, or pregnancy. Most participants thought their parents are more open now than before, suggesting that their parents' attitudes have changed when Chinese society started to hold more liberal attitudes toward pre-marital sex. Even though some still do not approve of cohabitation, they do not judge those who do.

No. 17: My parents can live with the notions of pre-marital sex and cohabitation, which are now prevalent. I had two sisters who had premarital sex and ended up with someone else. My parents were able to handle that; they did not feel ashamed. They are more open-minded now than before.

No. 16: The countryside is more conservative than the urban areas, but it is getting better. Still, I don't think my mom will allow me to do that. There are people in my hometown who got married when they were heavily pregnant; they did not feel embarrassed about that at all.

The women divulged that they still feel awkward when purchasing condoms or pills. Zheng et al. (2001) also note that female migrant workers are too shy to seek family planning information and visit such facilities. In this case, however, women feel awkward not because of "the shame of pre-marital sex," but due to their belief that the men should take care of these duties.

No. 8: My boyfriend is responsible for the condoms. He is the man; he should be in charge of that. I never take care of it.

No. 5: Usually, the men purchase condoms. How can you send a girl to buy that? A friend once told me her boyfriend wanted to have sex, but wanted her to go to the store for it. She said, "I'm not going to do that, so stop thinking about it!" It is a man's duty to buy. After all you are the man, you know yourself better than others.

Based on these responses, there is little evidence to support Hypothesis 2, which posits that the extent to which female migrant workers see sex-related topics as taboo will have a negative influence on their knowledge, attitudes and behavior. It is worth noting that the Chinese people, including those who live in remote areas, now hold a more liberal attitude toward sex and sexual behavior. The taboo has not completely disappeared, but it is no longer the most crucial factor affecting migrant women's sexual behavior. Sex-related topics are now readily discussed. At times, the women joke about it; sometimes, they seriously talk about reproductive health questions. However, the practice of safe sex does not seem to naturally follow knowledge acquisition and attitude change. Those with no sexual

experience said they are perfectly comfortable around people who openly talk about sex, pre-marital or otherwise, but they did not show intentions to seek more information. Those with sexual experience depended mostly on their boyfriends' whims about what birth control method to use. Therefore, it is hard to find a correlation between the tabooess of sex-related topics and the women's knowledge of, attitude about and behavioral intentions toward safe sex.

Gender Roles Effect

While the women displayed a significant change in attitudes toward sex, none of them directly used the terms "have sex" "condoms" or "withdrawal method." Instead, they used terms such as "get together" to indicate having sex, "that thing" to refer to a condom, as well as varied phrases to refer to the withdrawal method. Why are they verbally shy when their attitudes sound progressive? The reluctance to use straight-forward terms may have originated from the Confucian patriarchal tradition, which regards chastity as a woman's most important asset. The verbal shyness may reflect the struggle between the influence of emancipating concepts and traditional notions of virginity.

Another striking theme is that of gender roles, which were addressed frequently. Many stressed that the contraception method to use and the purchasing of contraceptive devices are "the men's business." This epitomizes the Confucian distinction between gender roles. Confucianism sees "males as superior and females as subordinate." The wife should obey her husband; men should be the breadwinner while women should take care of the household. Women are supposed to be submissive and less sexually aggressive than men, according to Gao et al. (2012). Thus, gender is an important determinant of patterns of sexual behavior. Socially prescribed gender roles dictate why female migrant workers give up their

decision rights, practice contraceptive methods depending on their boyfriends' habits, and leave the purchasing and information seeking to the man (because it is the man's job).

Some may argue that the Confucian style of gender role-setting belongs to the feudal past and should have dissipated with the establishment of the People's Republic in 1949. But Confucianism has dominated Chinese society for more than 2,000 years, permeating every aspect of people's lives, especially their ethical and moral standards (Gao et al., 2012). Judging by the women's discourse, this tradition is not easy to erase.

Gender disparities in the Chinese labor market also reinforce traditional gender roles, eventually becoming a habitual way of thinking and being. Therefore, while it is easier to accept a more Western attitude toward sexual behavior in the age of globalization, conventional gender roles endure. According to Bawah et al. (1999),

Because the control over women in these societies is so complete, and their status as "property" so deeply rooted, the potential of independent action to regulate fertility upsets the existing social contract that defines the system of gender relations. In such an environment, attention to the management of gender relations must be part of the overall family planning strategy. (p. 62)

Everybody Is Doing It

Hypothesis 3 predicts that using the message "everybody is doing it" will create a more positive attitude toward this safe sex practice. The responses lend support to this hypothesis. But the findings show that the bandwagon appeal can cut both ways. The high acceptability of induced abortion is perhaps the best proof here to testify the influence of the "everybody is doing it" mentality. The *dagongmeis* find induced abortion acceptable based on their observations that it is a common practice. They were comfortable talking about abortion, and do not find having one as shameful. This may be due to an awareness of a

friend or colleague's abortion experience, which many described as neither painful nor shameful.

No. 4: When you live with your boyfriend, you have a 90 percent chance to have induced abortion. I think this is common. I know women who have had abortions more than twice; never heard of them just having it once. When I found out I was pregnant, I was scared to death, but I heard other people say it is not very painful and it is an easy operation. They turned out to be right.

No. 10: I take people's reaction to my having an abortion for granted, so does everybody else. I once took my friend to the hospital to have an abortion. I saw a lot of other unmarried young girls there.

No. 20: My boyfriend thinks abortion is very common. All of his former girlfriends who got pregnant had an abortion. He is used to it. He does not feel anything about it, kind of numb.

The *dagongmeis'* and their parents' more relaxed attitude toward pre-marital sex and cohabitation also supports the "everybody is doing it" concept. The women constantly used terms like "social conduct" and "trend" to explain their acceptance of a lifestyle formerly seen as immoral. The idea that "everybody is doing it" has a more pronounced effect in countries like China where collective consciousness is highly valued (Rogers & Chen, 1980).

No. 6: Well, everybody is living with their boyfriend, so I don't have any opinion about it.

No. 3: I don't have a boyfriend, but I don't know if I will co-habit with him, when I find one. Most people do; this is the trend. I am not against that.

No. 8: My parents are okay with pre-marital sex. They do not necessarily like it, but it is a pretty common social conduct these days. They are not stiff.

Peer pressure leads to a bandwagon effect as people tend to do things simply because others are doing it (KSU, 2002). When *dagongmeis* observe that a lot of people use condoms, they see this as the norm and that there is a tacit social permission to do the same. No one is more anxious than them to be embraced by mainstream society. Thus, as hypothesized, the message “everybody is using condoms” profoundly influences the women’s attitudes toward safe sex.

Rumors

Hypothesis 4, which posits a strong influence of rumors on knowledge, attitudes and behavior, do not find support in the women’s discourse. First, the women’s general environment cannot be described as riddled with rumors about sexual practices and the efficacy of contraception methods. Only one thought that condoms harm reproductive abilities; another thought cola drinks can kill sperms. Nevertheless, it is worth checking the origins of these rumors to get insights about how *dagongmeis* acquire information and how much they trust the information and their sources. One said she read on the Internet that condoms may be harmful; the other said she heard about the rumor from her boyfriend and read about it in a pamphlet. These sources, as it turned out, were the most trusted.

No. 11: I know it is not good to use condoms frequently. They say if you use condoms too much, you’ll have difficulty having kids. I read it from a website. Sometimes you need to trust it.

No. 10: There was one time when my boyfriend was not able to control well and it (the sperm) slipped into my inside, so we were freaked out! And then he said, “Wash your vagina with Coke.” So I did. He learned about the Coke washing method from some pamphlet or magazine. I read about it, too.

Many expressed concern about the side-effects of emergency pills and long-term birth control pills. They know, for example, that emergency pills can cause serious reproductive complications and infertility although emergency pills are considered the most effective answer to unprotected sex. The level of worry over these adverse consequences is such that they would rather have an abortion than take emergency pills. To them, it is common knowledge that long-term birth control pills may have deleterious effects. This suggests that when an innovation becomes available, *dagongmeis* tend to focus more on the risks rather than the benefits. Moreover, the negative effects are often exaggerated. Their low education level may be behind this amplification of risk, but a keen awareness that they are very vulnerable as individuals and as a group, without access to health services and medical facilities, may be a stronger reason. In other words, by amplifying the gravity of side-effects, they are thinking they are able to protect themselves.

No. 4: Some people don't dare take the emergency pill even if they failed to use any protection, They are so afraid they won't be able to get pregnant in the future. I don't have kids yet; the long-term pill will lead to infertility. I never think about taking pills because, after all, they are medicine. I think taking pills in the long-term is bad for the health. I freaked out just hearing the word "long- term." Never tried. Everybody knows that all medicine has side-effects. I can tell you that where I work, 80% of the girls do not dare do that.

No. 18: My friend and her boyfriend migrated here together and were living together. They were preparing to get married in two years. She took a long-term birth-control pill, which works for three years, and she was always sick. About a year after they were married, they still can't have a baby. My boyfriend says medicine is bad for the health, He has asked me not to take any.

These exaggerated views about the adverse effects of birth control pills are difficult to avoid because they hear them repeated through word-of-mouth, as part of their daily sex-related conversations.

Mass Media and Interpersonal Channels

The women reported that they read magazines and newspapers in their workplace almost every day. They read whatever publication their workplace subscribes to. In short, they read what is available just to kill time. None of them subscribed to any publication.

No. 17: I usually read whatever we have in our restaurant. I like reading fashion magazines like Mi Na and Rui Li [both are popular fashion magazines]. We used to have them in our restaurant, but our boss no longer subscribes, so I don't read much right now.

No. 12: We have newspapers in our store. I read them every day.

No. 7: We have fashion magazines like Rui Li in our hotel. I like reading them. I don't subscribe to any magazine or newspaper; I just read whatever we have in the workplace.

Many do not watch television for three reasons: (1) they do not own one, (2) they do not have the time, and (3) they do not have the energy to watch after a ten-hour workday. The very few who watch go for entertainment shows.

Pamphlets

The women also frequently mentioned reading pamphlets about gynecology, printed products that were not originally listed in the questionnaire. Asked about their favorite magazines and whether they read magazines on women's health issues, many asked if hospital pamphlets count. They said the pamphlets are useful and easy to get. More

importantly, pamphlets can be shared with and circulated among friends. They can also read them in private.

No. 11: Sometimes I take them home gynecological pamphlets to read. Sometimes I bring them to the restaurants because a lot of the waitresses live with their boyfriends. We take turns reading them.

No. 9: I like to read materials like the little pamphlets that the hospitals send out. They contain lots of things you don't know about. I take them home so I can read in private.

No. 4: Hospitals, like Lan Tian Hospital, send all sorts of magazines in which articles ask you to watch out for gynecologic diseases. I read them sometimes. Those magazines have lots of advertisements. There are also some emotional stories, like the one about two people in a relationship who contracted infectious gynecologic diseases and the sad consequence of that. It was really fun to read, you know, to kill time.

These pamphlets are not meant to promote public health, but rather serve as soft advertisements from private gynecological hospitals that offer abortion. They discuss general health, but prominently display ads for induced abortion. Unwanted pregnancy was described as being a product of an "incident of love" and doctors guarantee that the surgery will take only three minutes and is painless. Such messages produce the false impression that unwanted pregnancy happens to everyone, is easy to fix, and that abortion is the best choice. To compete with other clinics, hospitals bid against each other in their abortion promotions. This may partly explain why the women were not afraid of abortion.

No. 4: The hospital magazines have a bunch of advertisements about painless abortion. I do believe that. I know someone who had an abortion. She said it was really painless and quick; you can go home immediately after the surgery.

No. 18: I know some girls who go to the hospital by themselves to have the surgery. We don't have much money, so we can't afford big hospitals. You know some gynecological clinics, those that distribute pamphlets on the streets? They do have promotions from time to time. They offer to do it at a much cheaper rate than the big hospitals.

It is hard to determine the accuracy of information found in these commercial pamphlets. Some women volunteered that they read about patently unrealistic recommendations (e.g., "Coke kills sperms") in these pamphlets. Nevertheless, they are very effective channels with which to reach female migrant workers. Improved versions of these print materials may explain scientific terms in a popular way and highlight stories about how average people contracted diseases, how they handled it, and what precautions need to be taken. Zheng et al. (2001) observed that some migrant women have a hard time understanding contraception instructions. Pamphlets, on the other hand, use popular conversational language to tell stories thereby making the information easier to digest. Such stories provide role models women find believable because they are similar to them.

Indeed, hospital pamphlets are frequently distributed in the streets, free of charge. Because they come from hospitals, they are perceived as having scientific authority, These perhaps explain why they are popular sources of reproductive health information among the *dagongmeis*. Moreover, these very portable pamphlets are easy to pass around. They stir interpersonal interactions, which make them potent tools for future campaigns. Future studies

should examine the content of these pamphlets systematically to find out what about them attracts *dagongmeis* the most.

QQ and Qzone

Nearly all informants claimed they are heavy users of the Internet. Why do they go online? The overwhelming answer is to chat on QQ (an instant messenger) and to check Qzone, QQ's partner micro-blog. QQ is a very important part of the women's lives.¹

No. 16: Sometimes I spend a whole night in the net bar. I surf, mostly chatting with friends on QQ. I also check my Qzone.

No. 10: I do have a computer at home where I usually log on my QQ, check other people's Qzone, and watch TV episodes online.

No. 10: I do not have a favorite website. I just go directly to my Qzone site.

Qzone is also where some obtain sex-related information.

No. 10: I read an article in my friend's Qzone. It was about how pre-marital sex is harmful to girls because it's easier for them to get pregnant. Then they must get numerous abortions. This article makes sense. It has been re-posted; people must have shared it for a reason.

Affordable cell phones enable access to the Internet considering that only two participants own a computer. In contrast, all participants own a cell phone in which they surf and download apps. The QQ app is the hands-down favorite. As Keller and Brown (2002) found, a smart phone offers access to information that answer personal and private needs.

They are "especially useful in circumstances where alternative sources of sexual information

¹ QQ, short for the Tencent Instant messenger, is China's biggest instant communication service network. Five billion people have registered QQ accounts. The simultaneous online user accounts broke the one billion mark in 2010 (<http://im.qq.com/culture/>). Qzone is a characterized, personalized blog for the QQ user that is similar to MySpace. On Qzone, people post diaries, reprint articles they like, and share music and photos.

are limited” (p. 70). Some women point out that they use their cell phone to search for answers to sex-related questions. They know of apps that are useful in the practice of safe sex.

No. 4: My boyfriend’s cell has an app that can determine your safe period. You input the beginning of your last period and your next period. Then the app asks you for the date when you and your boyfriend were together. It then calculates your chance of getting pregnant. I trust this method. I use it a lot.

No. 15: If I have a sex-related question, I check on it online. I won’t check it in a net bar; I will check it on my cell phone. I don’t feel comfortable looking at this kind of information when people are around.

No. 16: I check on the Internet, through my cell phone, or I ask my boyfriend. I trust him; he knows more.

In general, smart phones offer *dagongmeis* the chance to connect to the Internet because most of them do not own a computer. However, the women’s online activity is mostly limited to chatting on QQ. They have yet to recognize the wealth of information on the Web that can benefit their lives. This finding echoes those of Pew (2011) who observed that in the United States, the mobile Internet has created a new digital divide because minorities use it more for entertainment rather than for empowerment. Some female workers revealed that they seek sex-related information on the QQ website; however, the accuracy of the information they gather cannot be ascertained. All sorts of disinformation, especially pertaining to sexual matters, litter the Web. For example, the calendar calculation apps were not appraised and vetted by the medical community before they went out on the market. The accuracy of the calculation method remains questionable.

The popularity of QQ and Qzone suggests that future campaigns could appeal to the Tencent Company, operator of these services, to open a section on reproductive health issues targeted at women. They can also run stories similar to those found in the pamphlets.

Interpersonal Communication: The Boyfriend Channel

It has been established that women migrant workers spend a great amount of time chatting about sex-related topics with same-sex friends many of whom live with boyfriends and already have an abortion history. They tell each other “bed time stories.” Because many are doing it, pre-marital sex is seen as socially acceptable and nothing to be ashamed of. Many are comfortable consulting about gynecological problems with friends, especially those who are married, because they are thought to be more experienced. Hence, peer communication is an effective source of reproductive information.

Because of the high frequency of exchange between and among women, I considered asking them about other opinion leaders who can be trained to disseminate safe sex messages following the two-step flow theory (Kelly, 1991). However, the extremely high mobility of these migrant workers makes it almost impossible for them to even identify an opinion leader in their immediate environment.

A marked exception is their boyfriends to whom they turn when dealing with real problems. Because men have a natural need for sex, they are seen as innately more knowledgeable about it, which makes them reliable sources in their eyes. Their intimate relationships ease any psychological burden that go with talking about sex. For many, the boyfriend is the prime source of sex-related information.

No. 16: If I have a sex-related question, I usually turn to my boyfriend more than anyone else because he knows more than I do. He is a man; he is like a gift. What’s more, the boys talk about it, too. He also asks his friends. I believe in him; he knows better.

No. 17: If I have a sex-related question, I read the hospital pamphlets. I also ask my sister sometimes, but my information mostly comes from my boyfriend. When two

people are in a relationship, they treat each other well, so I believe whatever he says.

After all, he is a guy. Guys know more than we do.

No. 4: I turn to a close friend and my boyfriend. Between them, I trust my boyfriend more, of course. After all, he is my boyfriend; he won't laugh at me and I won't laugh at him. I think boys are way more open than girls. They watch those (pornographic) films. They know what to do. My boyfriend does not watch a lot, but I think he has more experience; knows more than I do.

Hypothesis 5 posits that interpersonal communication channels will influence contraceptive adoption more strongly than mass media channels. For information about contraception methods, selection and purchase of contraceptive devices, the *dagongmeis* relied heavily on their boyfriends: they depend on men, obey men, and worship men.

Although they obtain information from other sources, such as pamphlets and peers, ultimately, their boyfriend is the most important factor that influences their behavior. Therefore, there is ample evidence in support of Hypothesis 5 which predicts that within this group, interpersonal communication, especially communication with partners, is more influential than mediated communication in the transmission of information about sex and sexual practices.

CHAPTER 5. CONCLUSIONS

This study is a formative evaluation effort to assist in the design and implementation of a communication campaign that aims to inform Chinese women migrant workers about safe sex practices. The objectives are (1) to understand the process by which *dagongmeis* adopt and implement knowledge related to safe sex; (2) to identify the most effective and efficient communication channels that will cater to this special group; and (3) to assist in the design and implementation of communication strategies that may be used to reach out to this special target audience. Data were gathered through in-depth personal interviews with 22 female migrant workers who served as the study's informants.

Findings and Their Implications

Little evidence was found to support the KAP hierarchy of influence model. The findings confirmed the inconsistent use of condoms among young female migrant workers despite a relatively high knowledge of family planning principles and favorable attitudes toward birth control. This finding is congruent with that of Rogers (1995), Bond & Dover (1997) and Serena et al. (2000) who concluded that high awareness and favorable attitudes sometimes do not lead directly to practice. This may be due to prevailing notions of gender roles in which men are the decision makers, especially when it comes to sexual matters. It supports the contention that the "innovation decision process is somewhat cultural-bound" (Rogers, 1995, p. 172).

The participants fully recognize that condoms are very useful contraceptive devices. However, little information was available about other methods, such as IUDS or long-term birth control pills. The women talked almost exclusively about condoms, but condoms are discussed more in the context of its ability to reduce or enhance sexual pleasure and as a

protective instrument against unwanted pregnancy rather than a deterrent against sexually transmitted diseases. Their low level of awareness about AIDS and STDs partly explains why condoms are not consistently used. The desire to please their boyfriends also contributes to the irregular use of condoms.

Dual protection is defined as “any strategy that prevents both unwanted pregnancy and sexually transmitted infections” (Ntumba et al., 2012). In their study of female adolescents in Namibia, Ntumba et al. (2012) recommend that health facilities emphasize the dual merits of condoms. The findings of the current study also suggest that future campaigns should stress the importance of condoms from a health perspective rather than just for birth control.

This study asks: Whom do female migrant workers talk to about sex-related matters? How frequently and under what circumstances do they talk about sex with others? What kinds of sex-related topics are of interest to them? The findings show that the women talk a lot about sex-related topics mostly with their colleagues. They exchange anything from jokes to serious gynecological problems. Sex-related topics are no longer taboo; rather, they are among the most popular topics of conversation. They discuss sex whenever there is a need to kill time.

Little correlation was found between the degree to which pre-marital sex and abortion are considered taboo topics and the *dagongmeis'* knowledge of, attitude toward and practice of safe sex. Their remarks show an unprecedented liberal attitude toward sex and sexual behavior, a disposition they appear to share with their families. However, the practice of safe sex does not seem to go along with more liberal attitudes. Thus, whether considered taboo or accepted, attitude toward sex does not seem to correlate with the adoption of safe sex

practices. The latter seems to be dictated more by the preference and proclivities of male partners.

The results indicate no support for Hypothesis 4, which posits a major role for rumors and thus the need for two-sided presentation of messages. First, rumors related to sex and sexual practices did not appear to be pervasive within the women's environment. Second, presented with two-sided messages about contraception, it has been observed that the women usually exaggerate the negative side-effects or the risks to the neglect of benefits.

The women's discourse indicates that they and their parents now hold more liberal attitudes toward pre-marital cohabitation and abortion in accordance with rapidly liberalizing social mores, a finding that demonstrates the bandwagon effect. Therefore, Hypothesis 3 was supported. The women's remarks suggested that they see a society that is now more relaxed in its attitudes about couples living together before marriage. The *dagongmeis* understand this trend, observing that "everybody is doing it."

The impact of the bandwagon appeal has been examined in health communication studies and campaigns (e.g., Hershey et al., 1994; Petts & Niemeyer, 2004; Snyder et al., 2004). For example, Hershey et al. (1994) found that "bandwagoning" has a significantly effect on people's decision to be vaccinated against diseases. Stories about women's problems published in hospital pamphlets also have a similar effect. This suggests that future campaigns should apply the bandwagon appeal in slogans or posters.

Two media channels were found to be the most viable ways to reach this target audience: the hospital pamphlets and the instant online chatting tool, QQ. These channels offer a common advantage: they allow private use. In other words, these channels are personal. Pamphlets distributed by hospitals to advertise abortion services are readily available, free of charge, very portable, offer stories about people just like them, easy to read,

can be easily shared or passed on to friends, can be read during down times, and can be read in private. The pamphlets appeal to many who started to work right after middle school and therefore prefer conversational expressions from characters (fictional or otherwise) with whom they can relate. Most importantly, because these pamphlets come from hospitals, they are imbued with a sense of scientific authority. Future studies should systematically examine the content of these publications to determine accuracy, explore writing styles that make them very readable to *dagongmeis*, and examine the stories that resonate with women audiences. The findings of these content analyses can inform future campaigns.

Content analyses that focus on the supply side of information are important considering that the hospitals that publish and distribute the pamphlets women read have a commercial bias that may be gleaned in their content. Instead of promoting healthy and safe practices, these pamphlets may be disseminating rumors and misleading information. A cursory look at these publications indicate that they are loaded with ads that promote abortion, romanticize unwanted pregnancies, and gloss over the risks of induced abortion.

Social networking channels such as QQ and Qzone are very popular among the informants. Known as the Chinese Internet miracle, QQ has become the country's biggest instant communication service network. It boasts of the largest Internet registered user group in all of China with five billion accounts. Thus, it is not hard to imagine the influence of this platform. Because its operator, Tencent, actively participates in philanthropy, future campaigns can perhaps persuade it to open a section about reproductive health care. It can also feature stories similar to those the women are enamored of reading in the pamphlets. The link to this website can appear every time people access their Qzone account. Alternatively, short messages can pop up whenever they log onto QQ.

The finding supports the argument that “mass media channels are relatively more important at the knowledge function while interpersonal channels are relatively more important at the persuasion function in the innovation-decision process” (Rogers, 1975, p. 267). The current study finds that both the mass media and interpersonal communication can affect individual choices related to sexual health, but interpersonal communication, especially interactions between partners, plays a decisive role in determining what contraception practice to employ. The male partners were the primary sources of information and the undisputed decision makers when it comes to contraception choices. (Even the calendar calculation apps are on the boyfriends’ cell phones, rather than on theirs.)

The male dominance in decision-making may be a vestige of a long cultural tradition of patriarchal ideology (i.e., women are inferior to men and hence should obey them) that perpetuates women’s dependence on men even on patterns of sexual behavior. The imbalance in power and privilege between gender is echoed in the workplace where men are afforded more opportunities to advance.

Because women’s reproductive health mostly depends on their boyfriends’ sexual and reproductive health knowledge, future family planning information efforts should be directed toward the male partners. The need to shift the emphasis of family planning education programs from a female-oriented approach to a stronger focus on male audiences is urgent. Programs should be developed to inform and enable young men to act responsibly with regard to their own and their partners’ sexual health needs. Future studies should therefore bring attention to identifying strategies that can reach the male audience efficiently and effectively.

The finding also puts into question the viability of limiting government efforts to family planning. If gender roles are indeed the key determinants of health practices, then

initiatives that empower women to more actively participate in decisions that affect every aspect of their lives should be seriously considered. Only when women are imbued with a strong sense of self-awareness and the need for greater parity with their male counterparts can fundamental problems of inequality be addressed.

In summary, the findings indicate that the practice of safe sex lags behind knowledge and an overall positive attitude toward these practices. Prescribed gender roles that privilege the views of and the decisions made by men about what safe sex method to employ severely limits women's ability to decide on actual practice. The male partner, the prime opinion leader, was the most commonly cited source of information regarding sex in general. Interpersonal communication with friends was found to be an important source of information with a significant influence on attitudes. Pamphlets distributed by hospitals and the instant chatting tool QQ were the most important mediated sources of sex-related information for this special audience segment. To more effectively reach migrant female workers, the content of publications free of charge as well as instant messaging services can be enhanced. The results suggest that future information efforts should target migrant men who are their partners' most influential sources of information. From a long-term perspective, this study appeals for more initiatives that empower women to take a more active role in making decisions that have a bearing on other important aspects of their lives.

Limitations of the Study

Several limitations of this study should be noted. First, the sample was limited to women with careers in the service industries. The situation may be different for migrant workers who, for example, work in factories. Secondly, the study locale was confined to Wuhan, a city in central China where socioeconomic conditions drastically differ from those in other parts of the country. Attitudes toward pre-marital sex and other sexual behaviors

may be different between and among the western, central and eastern cities due to variations in prevailing economic and cultural conditions. Third, there is a strong possibility that there is a more hidden population within an already hidden population. That is, pretty girls are hired as restaurant ushers; the less pretty ones are employed as waitresses or cleaners. In other words, there may be a social hierarchy composed of sub-classes within this underprivileged female group. While this appears evident, studies that are keener about the nuances of social class stratification are in order.

**APPENDIX A.
INSTITUTIONAL REVIEW BOARD APPROVAL**

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

Date: 6/30/2011

To: Tian Zhu
c/o Eric Abbott, 204C Hamilton Hall

CC: Dr. Eric Abbott
204C Hamilton Hall

From: Office for Responsible Research

Title: The Adoption of Contraception Use among Chinese Female Migrant Workers

IRB Num: 11-227

Approval Date: 6/20/2011

Continuing Review Date: 6/6/2012

Submission Type: New

Review Type: Full Committee

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University. Please refer to the IRB ID number shown above in all correspondence regarding this study.

Your study has been approved according to the dates shown above. To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- Use only the approved study materials in your research, including the recruitment materials and informed consent documents that have the IRB approval stamp.
- Obtain IRB approval prior to implementing any changes to the study by submitting the "Continuing Review and/or Modification" form.
- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.
- Stop all research activity if IRB approval lapses, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- Complete a new continuing review form at least three to four weeks prior to the date for continuing review as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Research investigators are expected to comply with the principles of the Belmont Report, and state and federal regulations regarding the involvement of humans in research. These documents are located on the Office for Responsible Research website <http://www.compliance.iastate.edu/irb/forms/> or available by calling (515) 294-4566.

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.

APPENDIX B.
IN-DEPTH INTERVIEW QUESTIONNAIRE GUIDE

Demographic characteristics

1. What is your age?
2. What is your occupation?
3. What is your level of education?
4. Do you live in a dorm or in an apartment? Do you have roommates or do you live by yourself?
5. How long have you been living in this city?

PART 1. Reproductive knowledge

1. Can you name me some measures of contraception you know about? Do you know how to use them?
2. Do you know where to purchase them?
3. Do you use condom or any other contraceptive measure? Do you use it every time you have sex?
4. Are you concerned about unwanted pregnancy? Have you had an abortion? If yes, how do you feel about that?
5. Do you know that there are health risks related to abortion? If so, can you name me some of these health risks?
6. Have you ever had reproductive health problems?
7. Do you know what is STD? Do you know how STDs are transmitted?
8. Do you know what AIDS is? Do you know how AIDS is transmitted?

PART 2. Taboo degree

1. How do you feel about pre-marital sex? Do you think it is acceptable? Will you feel awkward if your friends find out that you practice pre-marital sex?
2. How do you feel about abortion? Do you think it is acceptable? Under what circumstances do you think people have abortions? Why?
3. Is pre-marital pregnancy acceptable for you?
4. How do you feel about girls cohabiting with their boyfriends even if they are not intending to get married? Will you live with your boyfriend before marriage? Why? Will you be embarrassed if people find out that you are living with your boyfriend without getting married?
5. Do you talk about sex with your family? Is it a taboo topic in your family?
6. How does your family treat pre-marital sex?
7. How does your family feel about abortion?
8. How does your family feel about pre-marital pregnancy? What will they do if they find out you are engaging in pre-marital sex?
9. Will it be a problem if your family or your relatives find out that you are cohabiting with your boyfriend?
10. Who do you usually talk to about sex? Who do you not want to talk about this topic?
11. How often do you discuss problems about sex with other people?
12. Do you pay attention to sex-related information? How much attention do you normally pay to this topic?
13. If there is a lecture about safe sex, will you attend it? Will you feel embarrassed attending it? Will you tell your friends to attend? Why?

14. Do you feel comfortable when your friends discuss sex and sex-related topics in your presence?

15. Will you look down on a friend who tells you that she is cohabiting with her boyfriend?

16. When someone asks you about sex and sex-related topics, do you feel insulted? Do you feel embarrassed?

17. What sex-related topics do you specifically want to know more about?

PART 3. Mass media exposure

1. Do you have a PC or a laptop? How well do you use the computer and the Internet?

2. How often do you use the Internet? What do you use the Internet for?

3. Do you find computers and the Internet useful when you need to search for information?

4. Are there websites you check on a regular basis? What are these?

5. When you have questions about sex and sex-related matters, what or whom do you usually turn to for answers?

6. What mass communication channels do you use regularly?

7. Do you subscribe to a local newspaper? There are some magazines that are especially aimed at female's mental and physical health. Can you name me any?

8. Can you recall the last time you learned information about sex and sex-related topics through the media? What was that information? What do you think about it?

9. Do you pay attention to information about sex? If an article about safe sex appears on the newspaper or online, are you likely to read it? Why?

10. What kind of TV programs do you like to watch?

11. In the last six months, have you seen or heard any information on reproductive health? From what medium did you hear about that information?

12. If you receive a pamphlet on safe sex, how likely are you to read it?

PART 5. Interpersonal contacts

1. Have you ever joined any community activities?

2. How do you describe your relationship with the local people?

3. Within the local community, whom do you get in touch with the most?

4. Think of your closest friends. Do they discuss sex-related issues with you? If you are seeking information about sex, will you turn to your friends or search information through the Internet, or other mass media channels?

5. If your friend tells you about a contraception method, will you believe it right away or will you check the information's reliability first?

6. Whose opinion do you value more when it comes to sexual behavior—your friends, family or the media? Why?

7. Among your friends and peers, is there any one you trust most and look up to? Who is this person? Why do you trust this person? Can you describe his/her characteristics?

8. Do you know that there is a family planning center or clinic in almost every community? Will you get information about sex-related matters from the doctors in the clinic? Why or why not?

9. Will you feel uncomfortable if a family planning worker visits you to offer counseling? Why or why not?

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